We claim:

1. A blue light-emitting compound having a chemical structure represented by formula (1):

$$R^{3} \xrightarrow{R^{1}} \begin{array}{c} R^{1} & N - N \\ C & C - R^{2} \end{array}$$

$$\cdots (1)$$

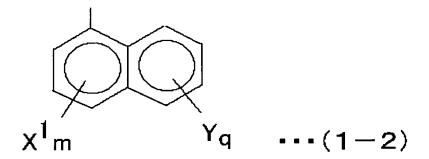
wherein R^1 is a hydrogen atom, an alkyl group having 1 to 15 carbon atoms, a cycloalkyl group having 6 to 15 carbon atoms, or an aryl group represented by one of formulas (1-1) to (1-4), wherein two R^1 s may be the same or different from each other; R^2 is an aryl group represented one of formulas (1-1) to (1-4), or furyl group; and R^3 is a group represented by formula (2) or a hydrogen atom;

the formula (1-1) is:

$$X_n^1 \cdots (1-1)$$

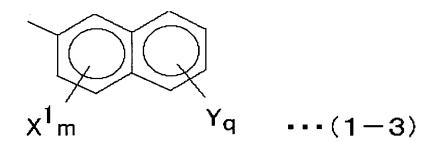
wherein X^1 is an alkyl group having 1 to 10 carbon atoms, an alkyl group having 1 to 10 carbon atoms, at least one hydrogen atom of which is replaced with a fluorine atom, or a hydrogen atom, and n denotes an integer of 1 to 5;

the formula (1-2) is:

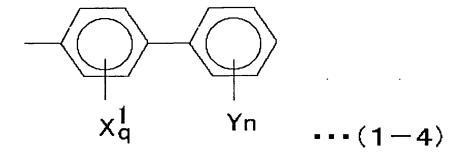


wherein X^1 means the same as the above; Y means an alkyl group having 1 to 10 carbon atoms, an alkyl group having 1 to 10 carbon atoms, at least one hydrogen atom of which is replaced with a fluorine atom, or a hydrogen atom; m denotes an integer from 1 to 3; q denotes an integer from 1 to 4; and X^1 and Y may be the same or different from each other;

the formula (1-3) is:



wherein X^1 , Y, m and q denote the same as the above-defined, and X^1 and Y may be the same or different from each other; the formula (1-4) is:



wherein X^1 , Y, n, and q denote the same as those defined above, and X^1 and Y may be the same or different from each other; and the formula (2) is:

$$R^2 - CCC - \cdots (2)$$

wherein R^2 denotes the same as that defined above; and when R^3 in the formula (1) is the group represented by the formula (2), R^2 bonded to the oxadiazolyl group in the formula (2) may be the same as, or different from R^2 bonded to the oxadiazolyl group in the formula (1).

2. A blue light-emitting compound having a chemical structure represented by formula (3):

$$R^4$$
 $C = CH$
 R^1
 R^1
 $CH = C$
 R^4
 $CH = C$
 R^4
 $CH = C$
 R^4
 $CH = C$

wherein R^1 denotes the same as that defined in claim 1; R^4 denotes a hydrogen atom, or an aryl group represented by formula (3-1) or (3-2); and four R^4 s may be the same or different from each other;

the formula (3-1) is:

wherein R^5 denotes a hydrogen atom or an alkyl group with 1 to 5 carbon atoms; and

the formula (3-2) is:

$$\mathbb{R}^{6}$$
n $\cdots (3-2)$

wherein ${\ensuremath{\text{R}}}^6$ denotes a hydrogen atom or an alkyl group with 1

to 5 carbon atoms, and n denotes the same as that defined in claim 1.

3. A process for producing a blue light-emitting compound represented by formula (6), comprising reacting a dicarboxylic acid represented by formula (4) with a halogenating agent to produce a first acid chloride, reacting the first acid chloride with a hydrazide to produce a first intermediate for the blue light-emitting compound represented by formula (5), and dehydrating the first intermediate to produce the blue light-emitting compound represented by formula (6), wherein the formula (4) is:

wherein R¹ denotes the same as that defined in claim 1; the formula (5) is:

$$R^{2} - C - NHNH - C - C - NHNH - C - R^{2}$$

$$0 \qquad 0 \qquad \cdots (5)$$

wherein ${\ensuremath{R}}^1$ and ${\ensuremath{R}}^2$ denote the same as those defined in claim 1; and

the formula (6) is:

$$R^{2} - C C C R^{1} + C C C R^{2}$$

$$\cdots (6)$$

wherein R^1 and R^2 denote the same as those defined above.

4. A process for producing a blue light-emitting compound represented by formula (9), comprising reacting a carboxylic acid represented by formula (7) with a halogenating agent to produce a second acid chloride, reacting the second acid chloride with a hydrazide to produce a second intermediate represented by formula (8), and dehydrating the second intermediate to produce the blue light-emitting compound represented by formula (9), wherein

the formula (7) is:

$$R^1$$
 R^1 $C - OH$ $C - OH$ $C - OH$

wherein R^1 is the same as that defined in claim 1; the formula (8) is:

$$\begin{array}{c|c}
R^{1} & R^{1} \\
\hline
 & C - NHNH - C - R^{2} \\
\hline
 & O & O
\end{array}$$

wherein R^1 and R^2 are the same as those defined in claim 1; and the formula (9) is:

wherein R^1 and R^2 are the same as those defined above.

5. A process for producing the blue light-emitting compound represented by the formula (3) in claim 2, comprising halogenating a fluorene represented by formula (10) to produce an halogenated aromatic compound represented by formula (11), reacting the halogenated aromatic compound with triphenyl-phosphine to produce an organic phosphoric compound, and reacting the organic phosphoric compound with a carbonyl compound, wherein

the formula (10) is:

$$\begin{array}{cccc}
R^{1} & R^{1} \\
\hline
\end{array}$$
... (10)

wherein R^1 denotes the same as that defined in claim 1; and the formula (11) is:

$$\begin{array}{c|c}
R^{1} & R^{1} \\
 & CH_{2} & CH_{2} - Hal \\
 & \cdots & (1 1)
\end{array}$$

wherein $\ensuremath{\mbox{R}^1}$ denotes the same as that defined in claim 1, and "Hal" denotes a halogen atom.

6. A luminescent element comprising a light-emitting layer including the blue light-emitting compound represented by the formula (1) or (3) between a pair of electrodes.